REMARKS

The specification stands objected to under 37 C.F.R. 1.75(d)(1) and MPEP §608.01(o) as failing to provide proper antecedent basis for "square prism". In response, Applicant amended claim 12 to define the "square prism" as a "square section". That is, amended claim 12 defines each of the first and second stable electrode columns as having a square section opposed to a base substrate. Sides of the square section are set larger than three times a wall thickness of the moveable electrode. (See Applicant's specification, page 9, lines 17-28, and FIG. 2). The square section is shown as a square or rectangular section 24 in FIG. 2. For this reason, withdrawal of the objection to the specification is respectfully requested.

The drawings stand objected to under 37 C.F.R. 1.83(a) as not showing the "square prism" feature of the invention. As discussed above with respect to the objection of the specification, claim 12 is amended to delete the term "square prism" and insert "square section", as shown in FIG. 2. Accordingly, withdrawal of the objection to the drawings is respectfully requested.

Claim 12 stands rejected under 35 U.S.C. 112 as failing to comply with the written description requirement. More specifically, the Examiner objects to the description of the columns being a "square prism". The arguments asserted above to overcome the objection to the specification and drawings are reasserted herein. For this reason, withdrawal of the §112 rejection of claim 12 is respectfully requested.

Claims 1-6 and 10-13 stand rejected under 35 U.S.C. 103(a) as being obvious over Dyck et al. (U.S. Patent No. 6,393,913), and further in view of Werner (U.S. Patent No. 6,133,059). Applicant traverses the rejection because the cited references do not disclose or suggest the structure of the stable electrodes, as now recited in amended claim 1.

Claim 1 recites a first stable electrode column fixed to a base substrate, and a second stable electrode column fixed to the base substrate at a location spaced from the first stable electrode. A first stable electrode wall connects to the first stable electrode column and extends between the first and second stable electrode columns, with the first stable electrode wall being opposed to the first opposed surface of the moveable electrode. A second stable electrode wall is connected to the second stable electrode column and extends between the first and second stable electrode columns. The second stable electrode wall is opposed to the second opposed surface of the movable electrode. More particularly, claim 1 clarifies that the first stable electrode wall and the second stable electrode wall extend between the first and second stable electrode columns.

Dyck and Werner fail to disclose "or suggest" the above structure defined in amended claim 1. Rather, Dyck is merely directed to a microelectromechanical dual-mass resonator structure that includes stationary electrodes 26, as shown in FIGs. 1 and 5. Similarly, Werner merely teaches electrodes FE2, FE3, FE1i, FE12, and FE13 being formed as an electrode wall having a uniform thickness, similar to Dyck.

With respect to claim 13, the Examiner considers it obvious to construct the actuator of the present invention using the actuator of Dyck and teachings of Werner to

achieve a moving electrode having a thickness W and stable electrode columns having an area of $9W^2$ at the basement plane, to optimize the power supplied to the electrodes. Applicant traverses this statement of the Examiner.

Claim 13 defines a moveable electrode as having a thickness W, and each of the first and second stable electrode columns are fixed to the base substrate at a position having an area that is larger than $9W^2$. Accordingly, when the insulating film is subjected to an etching process on the base substrate below the moveable electrode, the first and second stable electrode columns, and the first and second stable electrode walls. The insulating film remains below the first and second stable electrode columns. That is, the first and second stable electrode columns serve as a mask, and the insulating film below the moveable electrode having a thickness W is removed.

In contrast, Werner utilizes a different mask in order to remove the insulating layer below the moving electrode. Werner teaches that for the intermediate spaces ZR to remain, a different mask is used (Col. 5, lns. 50-57).

For all of the above reasons, withdrawal of the §103 rejection of claims 1-6 and 10-13 based on the Dyck and Werner references is respectfully requested.

Claims 14-15 stand rejected under 35 U.S.C. 103(a) as being obvious over Dyck and Werner, and further in view of Fujii et al. (U.S. Patent No. 6,227,050). Since claims 14-15 ultimately depend upon claim 1, they necessarily include all of the features of their associated independent claim plus other additional features. Thus, Applicant submits that the §103 rejection of claims 14-15 has also been overcome for the same reasons

mentioned above to overcome the rejection of independent claim 1, and because Fujii fails to overcome the deficiencies recited above with respect to Dyck and Werner. Applicant respectfully requests that the §103 rejection of claims 14-15 also be withdrawn.

New claim 16 is added and defines the electrode column as having a width greater than a width of the electrode wall, and further defines the structure of the stable electrodes. For this reason, Applicant requests allowance of new claim 16.

For all of the foregoing reasons, Applicant submits that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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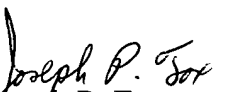
By 
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